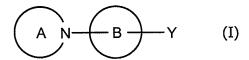
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A compound represented by formula (I):



wherein ring A represents an azepane ring which may have a substituent(s);

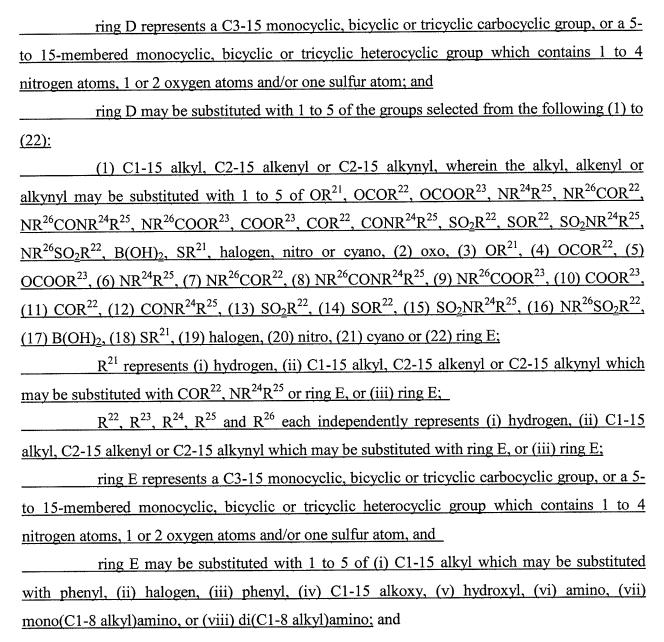
ring B represents a pyrimidine ring which may be substituted with 1-5 of R³; have a substituent(s);

plural R³'s each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R¹⁰, (2) oxo, or (3)R¹⁰;

plural R¹⁰'s each independently represents (1) OR¹¹, (2) OCOR¹², (3) OCOOR¹³, (4) NR¹⁴R¹⁵, (5) NR¹⁶COR¹², (6) NR¹⁶CONR¹⁴R¹⁵, (7) NR¹⁶COOR¹³, (8) COOR¹³, (9) COR¹², (10) CONR¹⁴R¹⁵, (11) SO₂R¹², (12) SOR²², (13) SO₂NR²⁴R²⁵, (14) NR¹⁶SO₂R¹², (15) B(OH)₂, (16) SR¹¹, (17) halogen, (18) nitro, (19) cyano, or (20) ring D;

R¹¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of halogen, NR¹⁴R¹⁵, OR²¹, SR²¹, COOR¹³, or ring D, or (iii) ring D;

R¹², R¹³, R¹⁴, R¹⁵ and R¹⁶ each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring D, or (iii) ring D;



Y represents

$$N = G$$

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wherein G represents a bond or a <u>methylene</u> spacer containing 1 to 3 atoms as a main chain;

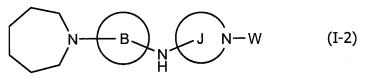
ring J represents an azetidine, a pyrrolidine, a piperidine or a perhydroazepine which may be substituted with 1-5 of R³ a 4 to 7-membered nitrogen-containing heterocyclic group which may have a substituent(s); and

W represents hydrogen, <u>a methyl</u>, <u>an ethyl</u>, <u>an isobutyl</u>, <u>a 3-methyl butyl</u>, <u>a</u> 2-ethylbutyl, a cyclohexylmethyl, a cyclohexyl, a cyclopentyl, a benzyl, a benzene, cyclohexanol, 1-(cyclohexylcarbonyl)piperidine, a tetrahydropyran-4-yl or a piperidine <u>a hydrocarbon group</u> which may have a substituent(s) or a heterocyclic group which may have a substituent(s),

or a salt thereof.

Claims 2-5. (canceled).

6. (currently amended) The compound according to claim 1, which is represented by formula (I-2):



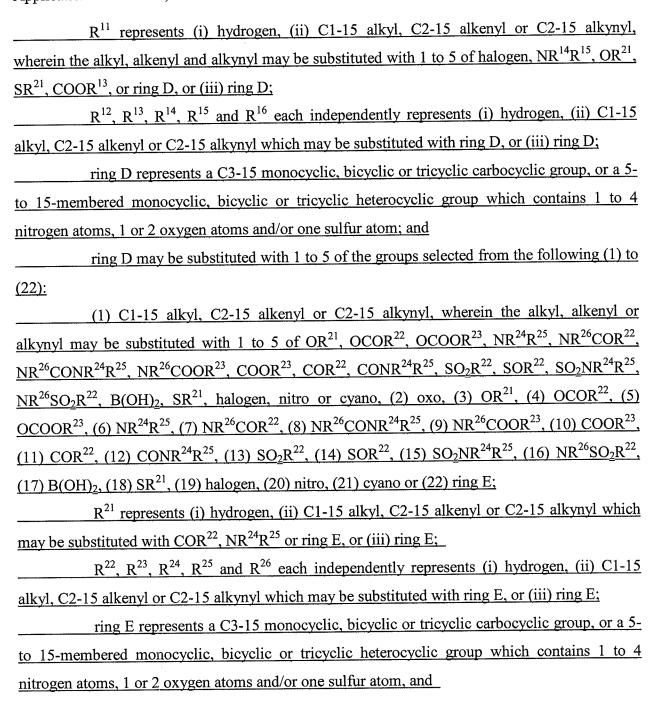
wherein ring B represents a pyrimidine ring which may be substituted with 1-5 of R³;

plural R³'s each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15

alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R¹⁰, (2) oxo, or

(3)R¹⁰;

plural R¹⁰'s each independently represents (1) OR¹¹, (2) OCOR¹², (3) OCOOR¹³, (4) NR¹⁴R¹⁵, (5) NR¹⁶COR¹², (6) NR¹⁶CONR¹⁴R¹⁵, (7) NR¹⁶COOR¹³, (8) COOR¹³, (9) COR¹², (10) CONR¹⁴R¹⁵, (11) SO₂R¹², (12) SOR²², (13) SO₂NR²⁴R²⁵, (14) NR¹⁶SO₂R¹², (15) B(OH)₂, (16) SR¹¹, (17) halogen, (18) nitro, (19) cyano, or (20) ring D;



ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxy, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino;

ring J represents an azetidine, a pyrrolidine, a piperidine or a perhydroazepine which may be substituted with 1-5 of R³; and

W represents hydrogen, a methyl, an ethyl, an isobutyl, a 3-methyl butyl, a 2-ethylbutyl, a cyclohexylmethyl, a cyclohexyl, a cyclohexyl, a benzyl, a benzene, cyclohexanol, 1-(cyclohexylcarbonyl)piperidine, a tetrahydropyran-4-yl or a piperidine all symbols have the same meanings as those described in claim 1.

Claim 7. (canceled).

8. (currently amended) A compound represented by formula (I-B):

wherein ring A^B represents an azepane ring; ring B^B represents:

wherein ring Z represents a C5-10 monocyclic or bicyclic carbocyclic group, or a 5-to 10 membered monocyclic or bicyclic heterocyclic group which may contain 1 or 2 nitrogen atoms, one oxygen atom and/or one sulfur atom; the upward arrow represents a binding position to ring A^B; and the right-downward arrow represents a binding position to the nitrogen atom bound to L;

L represents (1) a bond, (2) C1-8 alkylene, C2-8 alkenylene or C2-8 alkynylene, wherein the alkylene, alkenylene and alkynylene each may be substituted with 1 to 5 of R¹⁰, or (3) a C3-8 carbocyclic group which may be substituted with R³;

Q represents (1) NR¹R² wherein R¹ and R² each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with 1 to 5 of R¹⁰, (iii) a C3-8 carbocyclic group which may be substituted with 1 to 5 of R³, or (iv) a 5- to 15-membered heterocyclic group which contains 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted 1 to 5 of R³, or (2) ring C;

ring C represents a 4- to 15-membered heterocyclic group which is fully saturated and which contains at least one nitrogen atom and may further contain 1 or 2 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom and which may be substituted with 1 to 5 of R³;

plural R^{3} 's each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R^{10} , (2) oxo, or (3) R^{10} ;

plural R¹⁰'s each independently represents (1) OR¹¹, (2) OCOR¹², (3) OCOOR¹³, (4) NR¹⁴R¹⁵, (5) NR¹⁶COR¹², (6) NR¹⁶CONR¹⁴R¹⁵, (7) NR¹⁶COOR¹³, (8) COOR¹³, (9) COR¹², (10) CONR¹⁴R¹⁵, (11) SO₂R¹², (12) SOR²², (13) SO₂NR²⁴R²⁵, (14) NR¹⁶SO₂R¹², (15) B(OH)₂, (16) SR¹¹, (17) halogen, (18) nitro, (19) cyano, or (20) ring D;

R¹¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of halogen, NR¹⁴R¹⁵, OR²¹, SR²¹, COOR¹³, or ring D, or (iii) ring D;

R¹², R¹³, R¹⁴, R¹⁵ and R¹⁶ each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring D, or (iii) ring D;

ring D represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5-to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom; and

ring D may be substituted with 1 to 5 of the groups selected from the following (1) to (22):

(1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl or alkynyl may be substituted with 1 to 5 of OR²¹, OCOR²², OCOOR²³, NR²⁴R²⁵, NR²⁶COR²², NR²⁶CONR²⁴R²⁵, NR²⁶COOR²³, COOR²³, COR²², CONR²⁴R²⁵, SO₂R²², SOR²², SO₂NR²⁴R²⁵, NR²⁶SO₂R²², B(OH)₂, SR²¹, halogen, nitro or cyano, (2) oxo, (3) OR²¹, (4) OCOR²², (5) OCOOR²³, (6) NR²⁴R²⁵, (7) NR²⁶COR²², (8) NR²⁶CONR²⁴R²⁵, (9) NR²⁶COOR²³, (10) COOR²³, (11) COR²², (12) CONR²⁴R²⁵, (13) SO₂R²², (14) SOR²², (15) SO₂NR²⁴R²⁵, (16) NR²⁶SO₂R²², (17) B(OH)₂, (18) SR²¹, (19) halogen, (20) nitro, (21) cyano or (22) ring E;

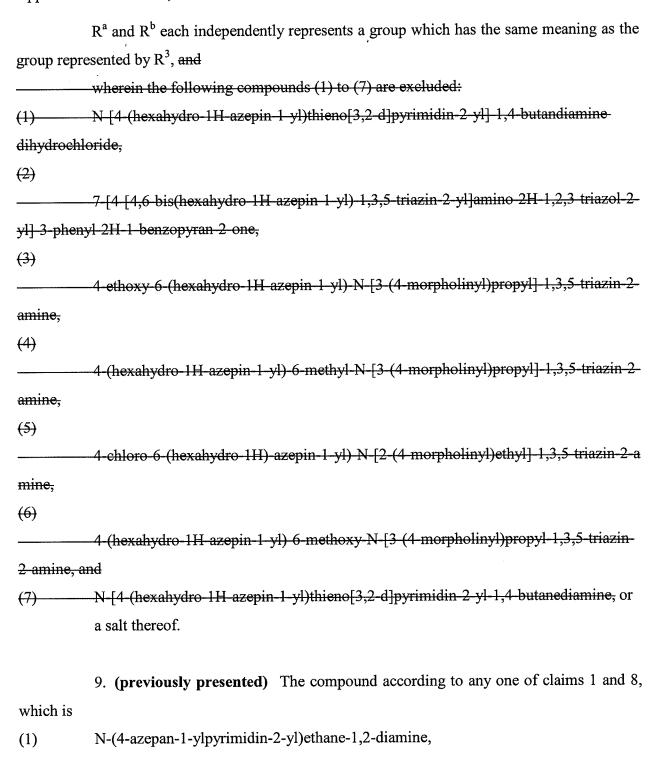
R²¹ represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with COR²², NR²⁴R²⁵ or ring E, or (iii) ring E;

R²², R²³, R²⁴, R²⁵ and R²⁶ each independently represents (i) hydrogen, (ii) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl which may be substituted with ring E, or (iii) ring E;

ring E represents a C3-15 monocyclic, bicyclic or tricyclic carbocyclic group, or a 5-to 15-membered monocyclic, bicyclic or tricyclic heterocyclic group which contains 1 to 4 nitrogen atoms, 1 or 2 oxygen atoms and/or one sulfur atom, and

ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxy, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino;

ring $A^{[[A]]B}$ may be substituted with 1-5 of R^a ; ring $B^{[[A]]B}$ may be substituted with 1-5 of R^b ;



- (2) N¹-(4-azepan-1-ylpyrimidin-2-yl)-N²,N²-dimethylethane-1,2-diamine,
- (3) 4-azepan-1-yl-N-((3S)-1-cyclohexylpyrrolidin-3-yl)pyrimidin-2-amine,
- (4) 4-azepan-1-yl-N-((3S)-1-benzylpyrrolidin-3-yl)pyrimidin-2-amine,
- (5) 4-azepan-1-yl-N-((3S)-1-(2-ethylbutyl)piperidin-3-yl)pyrimidin-2-amine,
- (6) 4-azepan-1-yl-N-[(3S)-1-cyclohexylpiperidin-3-yl]pyrimidin-2-amine,
- (7) 4-azepan-1-yl-N-[(3S)-1-tetrahydro-2H-pyran-4-ylpiperidin-3-yl]pyrimidin-2-amine,
- (8) 4-(3S)-3-[(4-azepan-1-ylpyrimidin-2-yl)amino]piperidin-1-ylcyclohexanol, or
- (9) (3S)-N-(4-azepan-1-ylpyrimidin-2-yl)-1'-(cyclohexylcarbonyl)-1,4'-bipiperidin-3-amine.
- 10. (previously presented) A pharmaceutical composition, which comprises the compound represented by formula (I) according to claim 1, or a salt thereof, and a pharmaceutically acceptable carrier.

Claims 11 - 22. (canceled)

23. (currently amended) A CXCR4 antagonist <u>composition</u>, which comprises the compound represented by formula (I-B) according to claim 8, or a salt thereof, as an active ingredient, and a pharmaceutically acceptable carrier.

Claims 24 - 27. (canceled)

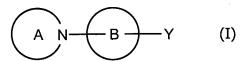
28. (currently amended): A medicament which comprises the compound according to any one of claims 1, and 8 and 17, or a salt thereof, in combination with one or at least two of a reverse transferase inhibitor, a protease inhibitor.

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- 29. (Original) The medicament according to claim 28, wherein the reverse transferase inhibitor is one or at least two selected from zidovudine, didanosine, zalcitabine, stavudine, lamivudine, abacavir, adefovir, dipivoxil, emtricitabine, tenofovir, nevirapine, nevirapine, efavirenz and capravirine.
- 30. (Original) The medicament according to claim 28, wherein the protease inhibitor is one or at least two selected from indinavir, ritonavir, nelfinavir, saquinavir, amprenavir, lopinavir and lopinavir.

Claims 31-32. (canceled)

33. (currently amended) A method for treating human immunodeficiency virus infection, which comprises administering to a subject in need thereof an effective amount of a compound represented by formula (I):

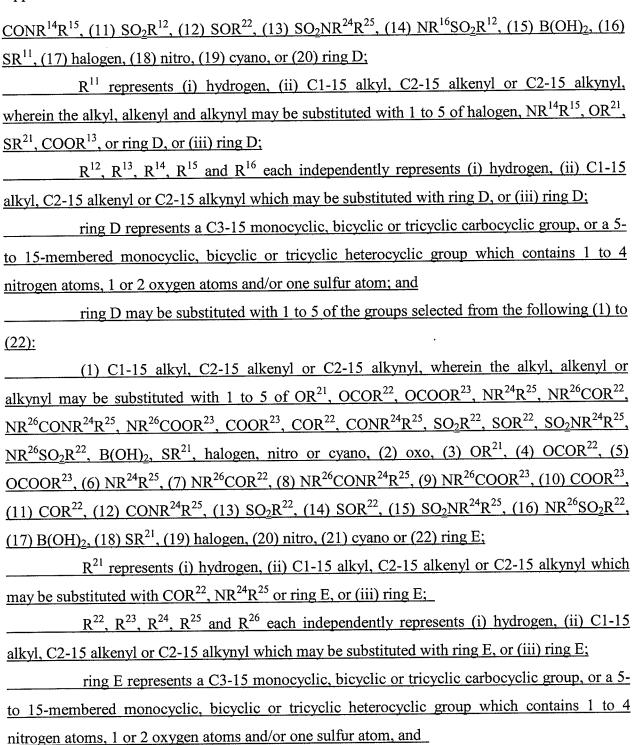


wherein ring A represents an azepane ring which may have a substituent(s);

ring B represents a pyrimidine ring which may be substituted with 1-5 of R³ may have a substituent(s);

plural R³'s each independently represents (1) C1-15 alkyl, C2-15 alkenyl or C2-15 alkynyl, wherein the alkyl, alkenyl and alkynyl may be substituted with 1 to 5 of R¹⁰, (2) oxo, or (3)R¹⁰;

plural R¹⁰'s each independently represents (1) OR¹¹, (2) OCOR¹², (3) OCOOR¹³, (4) NR¹⁴R¹⁵, (5) NR¹⁶COR¹², (6) NR¹⁶CONR¹⁴R¹⁵, (7) NR¹⁶COOR¹³, (8) COOR¹³, (9) COR¹², (10)



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ring E may be substituted with 1 to 5 of (i) C1-15 alkyl which may be substituted with phenyl, (ii) halogen, (iii) phenyl, (iv) C1-15 alkoxy, (v) hydroxyl, (vi) amino, (vii) mono(C1-8 alkyl)amino, or (viii) di(C1-8 alkyl)amino; and

Y represents

$$N = G$$

wherein G represents a bond or a <u>methylene</u> spacer containing 1 to 3 atoms as a main chain;

ring J represents an azetidine, a pyrrolidine, a piperidine or a perhydroazepine which may be substituted with 1-5 of R³ a 4- to 7 membered nitrogen-containing heterocyclic group which may have a substituent(s); and

W represents hydrogen, <u>a methyl</u>, <u>an ethyl</u>, <u>an isobutyl</u>, <u>a 3-methyl butyl</u>, <u>a</u> 2-ethylbutyl, a cyclohexylmethyl, a cyclohexyl, a cyclopentyl, a benzyl, a benzene, cyclohexanol, 1-(cyclohexylcarbonyl)piperidine, a tetrahydropyran-4-yl or a piperidine <u>a hydrocarbon group</u> which may have a substituent(s) or a heterocyclic group which may have a substituent(s),

or a salt thereof.

Claim 34. (canceled)